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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/666,666

09/18/2003

Wen-Li Su

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8981

7590

01/07/2005

HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
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EXAMINER

NGUYEN, LAM S

ART UNIT

PAPER NUMBER

2853

DATE MAILED: 01/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/666,666	<b>Applicant(s)</b> SU ET AL.	
	<b>Examiner</b> LAM S NGUYEN	<b>Art Unit</b> 2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 27 and 44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 27 and 44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This application is a divisional from the parent application 09/916008 patented as US 6769756. In the parent application, the restriction requirement was made regarding to the inventions relating to FIG. 5-12 and FIG. 13-20. The applicants elected the invention relating to FIG. 5-12 for further prosecution. However, the parent application was patented including not only the invention relating to FIG. 5-12 but also the invention relating to FIG. 2-4. Because the current application claims an invention relating to FIG. 2-4, the double patenting rejection from the parent patent above is still applicable.

#### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims 27 and 44 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 14 and 23 of U. S. Patent No. 6769756 in view of Watanabe (US 4484199).

Claims 14 and 23 of U. S. Patent No. 6769756 discloses a sensor configuration for use in a printing mechanism including a printhead having ink drop generators for selectively ejecting ink (*column 12, lines 54-55*) and an ink drop sensor for detecting ink droplets ejected from the ink drop generators (*column 12, lines 56-57*), wherein the ink drop sensor comprising:

a non-contact electrically biased sensing target (*column 12, lines 61-67*:

*The ink droplet passes in close proximity to the sensing element without substantially contacting the sensing element*), wherein the sensing target is configured to receive a biasing voltage which creates an electric field from the sensing target to an ink drop generator (*column 12, lines 58-60*); and

a sensing amplifier coupled to the sensing element, whereby the sensing target is imparted with an electrical stimulus (*column 12, lines 61-65*) generated by a capacitive current related to a charge on an ink droplet created by the electric field, wherein the capacitive current is created when the charged ink droplet strikes a printing medium (*column 14, lines 1-4: The capacitively induced current in the sensor is created when the ink drop contacts (strikes) the print media*).

Claims 14 and 23 of U. S. Patent No. 6769756 do not disclose wherein the sensing target is coupled to the sensing target via a sensing conductor.

Watanabe discloses a circuit for determining failure in an ink jet printing apparatus, wherein the circuit comprises a sensing element (*FIG. 1, element 7*) for sensing ink droplets and being coupled to a sensing amplifier (*FIG. 1-2, element 8 and column 2, lines 62-68*) via a sensing conductor (*FIG. 1: The wiring conductor connects the sensing element 7 and the amplifier 8*).

Therefore, it would have been obvious for one having ordinary skill in the art at the time invention was made to modify the ink drop detector disclosed by claims 14 and 23 of U. S. Patent No. 6769756 such as connecting the sensing target and the sensing amplifier via the sensing conductor as disclosed by Watanabe. The motivation for doing so would have been to provide a device that is possible to detect jetting failure without requiring visual inspection as taught by Watanabe (*column 2, lines 40-50*).

#### ***Response to Arguments***

Applicant's arguments with respect to claims 27 and 44 have been considered but are moot in view of the new ground(s) of rejection based on double patenting.

The applicants' argument about drawings objection has been found persuasive. Therefore, the objection is withdrawn.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAM S NGUYEN whose telephone number is (571)272-2151. The examiner can normally be reached on 7:00AM - 3:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, STEPHEN D MEIER can be reached on (571)272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LN  
December 15, 2004



HAI PHAM  
PRIMARY EXAMINER